QUALITY CONTROL (QC) AND
INDEPENDENT TECHNICAL REVIEW (ITR) PLAN

1.0 PURPOSE

This review plan presents the process that assures quality products for the North Shore of Long Island, **Lake Montauk Harbor Navigation and Erosion Control Study.** This QC and ITR plan defines the responsibilities and roles of each member on the study and technical review team.

The product to be reviewed by the technical review team is the feasibility-level **Lake Montauk Harbor Navigation and Erosion Control** Study. Under the provisions of new U.S. Army Corps of Engineers (USACE) policy, as detailed in EC1105-2-408 dated May 31, 2005, the ITR will be conducted by specialists from organizations outside of the district responsible for the study. ITR will be conducted for all decision documents and will be independent of the technical production of the project. This QC and ITR plan is, by reference, a part of the project management plan.

2.0 APPLICABILITY

This document provides the quality control plan for the **Lake Montauk Harbor Navigation and Erosion Control** Study. It identifies quality control processes and independent technical review for all work to be conducted under this study authority, including in-house, sponsor, and contract work.

3.0 REFERENCES

EC 1105-2-408 “Peer Review of Decision Documents” (May 31, 2005)
EC 1105-2-407 “Planning Models Improvement Program: Model Certification” (May 31, 2005)
EC 1105-2-409 “Planning in a Collaborative Environment” (May 31, 2005)
ER 1105-2-100 “Planning Guidance Notebook and Appendices”

4.0 GENERAL PROJECT DESCRIPTION

Lake Montauk is located on the north shore of the south fork of Long Island, three miles west of Montauk Point in the Town of East Hampton. The lake is connected with Long Island Sound by an inlet subject to shoaling, protected by two rock jetties, and requiring regular maintenance dredging; the shoreline along the sound is additionally subject to erosion requiring regular renourishment. The study area additionally encompasses the Block Island Sound shorelines bounded by Fort Pond Bay on the west and Shagwong Point on the east. Lake Montauk and this channel serve as an important base for the fishing industry as well as for other commercial and recreational watercraft. The feasibility study primarily proposes alternatives to mitigate each of these problems (navigation improvement and erosion control). (It secondarily proposes to achieve a better understanding of the littoral transport processes, the erosion problems of the

shoreline downdrift of the inlet, and the sources and quantities of material contributing to the shoaling of the inlet.)

5.0 REVIEW REQUIREMENTS

Initial Quality Control (QC) review has been handled within the Branch performing the work. Additional QC will be performed by the Project Delivery Team (PDT) during the course of completing the Feasibility Study. The detailed checks of computations and methodology should be performed at the District level, and the processes for this level of review are well established. Pursuant to EC 1105-2-408, item 2 c (2), Models used in the preparation of decision documents covered by this Circular will be reviewed in accordance with EC 1105-2-407, Planning Models Improvement Program: Model Certification. For this study, one or more spreadsheet-based economic models will be utilized, which would need to be reviewed consistent with the current certification procedures.

Pursuant to EC 1105-2-408, the Feasibility study and EIS will need a full ITR team coordinated by the Planning Center of Expertise (PCX) for Coastal Storm Damage Reduction Projects. It is recommended that the ITR be handled entirely within USACE, as the scope and level of technical complexity do not warrant an External Peer Review (EPR), based upon the initial Risk Screening Process conducted by the PDT noted in Section 9. The study is not controversial or precedent setting, nor does it have highly significant national importance so as to warrant risk abatement external peer review. As a result, the ITR will focus on:

1 Review of the planning process and criteria applied.
2 Review of the methods of preliminary analysis and design.
3 Compliance with authority and NEPA requirements.
4 Completeness of preliminary support documents.
5 Spot checks for interdisciplinary coordination.

6.0 REVIEW PROCESS

The ITR review process has not commenced; as stated above, the PCX for Coastal Storm Damage Reduction will coordinate this process. The review will cover key formulation and benefit and cost assessment areas. Following completion of the draft feasibility study, which will be no earlier than the end of 2007, the major review process milestones will be those listed below:

1 Draft Report Review
2 Final Report Review

7.0 REVIEW COST

The final cost of the ITR is to be determined between the PDT and the PCX. It is assumed that any remaining documents to be reviewed will be transmitted electronically. Comments will be made and addressed in Dr. Checks. It is also assumed that the external

ITR team will be working virtually. Only under extreme circumstances should the external ITR team, or a representative of that team, be required to travel to physically attend PDT or milestone meetings. The external ITR team should, with this constraint, participate in all remaining milestone meetings.

8.0 REVIEW SCHEDULE

The review schedule is as follows:

TASK	START DATE	FINISH DATE
Develop ITR Plan and post to Web Site, PCX	June 2007	July 2007
Identify Regional ITR resources and	July 2007	
Recommend ITR Plan to PCX	July 2007	
Sponsor Approves ITR Plan	indefinite	
Review of Models	N/A - standard	
Alternative Formulation Briefing		
Review of Draft Report	2008	
Review of Final Report	2008	

9.0 PROJECT RISK

The PDT has completed an initial risk assessment associated with this project based upon five factors and rated the project quantitatively among five levels of project risk of failure ranging from low to high (risk score class). The PDT scored each Project Risk Item in the Review Plan Score Guide (Table 9.1) and calculated an overall Average Project Risk Assessment Score. The exact value of the scores were not as important as compared to what risk score class (low, medium, or high) the Average Project Risk Assessment Score was classified as. Based upon the PDT analysis, the project is medium in risk because it did not receive an overall high risk score.

The PDT considered previous District project experience when making this analysis. No attempt was made to tie this to a national scale of rating. The Project Schedule and Cost were assessed as a low degree of risk if they both remained flexible and a high degree of risk if the Project schedule and cost was fixed. Staff Technical Experience was assessed as a low degree of risk if the staff had a high level of beach erosion control and coastal storm damage reduction experience and a high degree of risk if the staff had a low level of experience. The results of the evaluation are tabulated as follows:

Table 9.1 Review Plan Score Guide

Project Risk Item
Project Complexity

Customer Expectations
Product Schedule/Cost
Staff Technical Experience
Failure Impact and Consequences
Average Project Risk Assessment Score

10.0 REVIEW PLAN

The components of the review plan were developed pursuant to the requirements of EC1105-2-408.

10.1 Team Information

The decision document that will be the ultimate focus of the review process is the **Lake Montauk Harbor Navigation and Erosion Control** Study. The purpose of this feasibility-level study and associated EIS will be to guide the Corps' efforts to improve navigation and control erosion near and at Lake Montauk Harbor. This list provides the points of contact of NAN team members who are available to answer specific technical questions as part of the review process. The list also provides the names and organization of participating outside entities.

District Project Team Members:

MAIN REPORT PRODUCT	STUDY TEAM MEMBERS	REVIEW TEAM MEMBER
Feasibility Report Main Text	Project Planner CENAN-PL-F	All review team members will review this document internally External ITR: TBD
NEPA Documentation	TBD CENAN-PL-E	All review team members will review this document internally External ITR: TBD

Sections	STUDY TEAM MEMBER	REVIEW TEAM MEMBER
Plan Formulation		TBD thru PCX

Economics		TBD thru PCX
Environmental	TBD	TBD thru PCX
Cultural Resources	TBD	TBD thru PCX
Real Estate		TBD thru PCX
Hydrology and Hydraulics		TBD thru PCX
Geotechnical/Structural		TBD thru PCX

10.2 Scientific Information

Based upon the self evaluation by the PDT, it is unlikely that the USACE study to be disseminated will contain influential scientific information. Influential scientific information is defined by the Office of Management and Budget as scientific information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions.

10.3 Timing

The ITR process will start upon coordination with the PCX--dependent on the completion of the draft feasibility study, which will be no earlier than the end of 2007.

10.4 External Peer Review Process

It is not anticipated that external peer review will be required. PCX and vertical team concurrence is required.

10.5 Public Comment

Public involvement is anticipated during the outreach phase between the draft and final feasibility studies. As these will not be completed until at least 2008, further public involvement activities have, therefore, not been scheduled at this time.

10.6 ITR Reviewers [This will be updated accordingly based on PDT and NAD negotiations.]

It is anticipated that four to five reviewers total should be available in the following disciplines: coastal hydraulics and design, economics, geotechnical, planning, environmental, cultural resources, and cost estimating. The reviewer contact information should be stated in Section 10.1 of this review plan. Cost estimating, as required by HQUSACE, review will be conducted by Cost Estimating Center of Expertise (NWW).

10.7 External Peer Review Selection

This will be determined conclusively in conjunction with the PCX and vertical team, if at odds with Section 10.4.